

10/654,175

STM- Structure Search
11.8.04

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L4 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:429546 CAPLUS

DOCUMENT NUMBER: 137:21500

TITLE: Thermally stable anthraquinone colorants containing copolymerizable vinyl groups and polymeric coating compositions based on them

INVENTOR(S): Cyr, Michael John; Weaver, Max Allen; Rhodes, Gerry Foust; Pearson, Jason Clay; Cook, Phillip Michael; De Wit, Jos Simon; Johnson, Larry Keith

PATENT ASSIGNEE(S): Eastman Chemical Co., USA

SOURCE: U.S. Pat. Appl. Publ., 26 pp., Cont.-in-part of U.S. Ser. No. 633,548, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002068725	A1	20020606	US 2001-911789	20010724
US 6689828	B2	20040210		
WO 2002012401	A2	20020214	WO 2001-US23705	20010730
WO 2002012401	A3	20020418		
W: CN, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1307517	A2	20030507	EP 2001-961769	20010730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004506062	T2	20040226	JP 2002-517695	20010730
US 2004102637	A1	20040527	US 2003-719268	20031121
US 2004110812	A1	20040610	US 2003-719883	20031121
US 2004122072	A1	20040624	US 2003-719427	20031121
US 6787658	B2	20040907		
US 2004142995	A1	20040722	US 2003-734630	20031212
PRIORITY APPLN. INFO.:				
				US 2000-633548 B2 20000807
				US 2001-911789 A 20010724
				WO 2001-US23705 W 20010730

OTHER SOURCE(S): MARPAT 137:21500

AB Disclosed are thermally stable anthraquinone dyes containing ≥ 1 vinyl group(s) which render the compds. copolymerizable with reactive vinyl monomers to produce colored, polymeric compns. such as acrylic polymer materials. The dyes possess good fastness to UV light, good solubility in vinyl monomers, good color strength, and excellent thermal stability. Coating compns. are based on ≥ 1 reactive vinyl monomer(s), ≥ 1 vinyl dye(s), and a photoinitiator. In an example, 1,5-bis(2-carboxyphenylthio)anthraquinone was diesterified with 4-vinylbenzyl chloride to give a yellow bis(4-vinylbenzyl) ester.

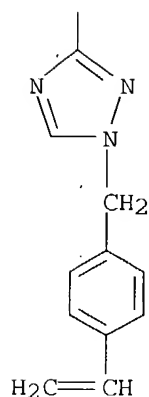
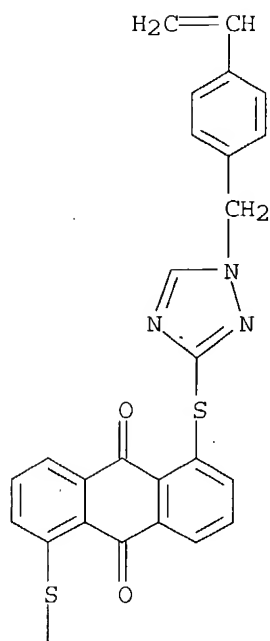
IT 396715-21-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(yellow dye; production and polymerization of thermally stable anthraquinone dye monomers)

RN 396715-21-2 CAPLUS

CN 9,10-Anthracenedione, 1,5-bis[[1-[(4-ethenylphenyl)methyl]-1H-1,2,4-triazol-3-yl]thio]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:123136 CAPLUS

DOCUMENT NUMBER: 136:168964

TITLE: Photopolymerizable dyes and their production

INVENTOR(S): Cyr, Michael John; Weaver, Max Allen; Rhodes, Gerry
Foust; Pearson, Jason Clay; Cook, Phillip Michael; De
Wit, Jos Simon; Johnson, Larry Keith

PATENT ASSIGNEE(S): Eastman Chemical Company, USA

SOURCE: PCT Int. Appl., 112 pp.

CODEN: PIXXD2

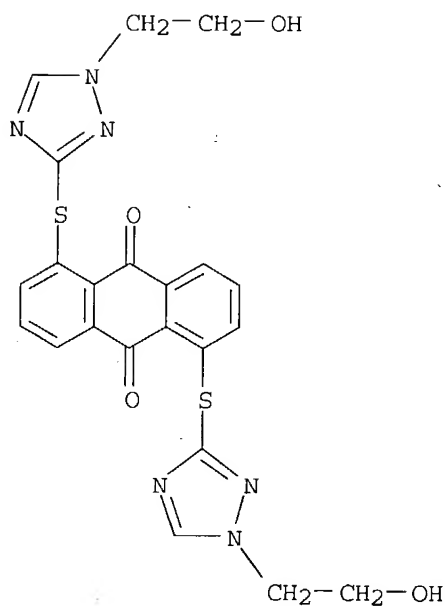
DOCUMENT TYPE: Patent

LANGUAGE: English

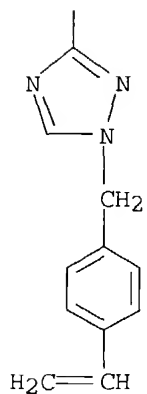
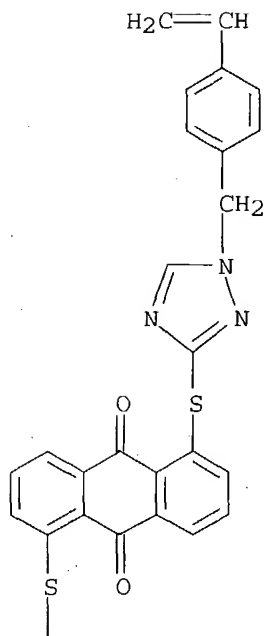
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012402	A2	20020214	WO 2001-US24634	20010806
WO 2002012402	A3	20021017		
W: JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2002132874	A1	20020919	US 2001-920904	20010802
US 6727372	B2	20040427		
EP 1307515	A2	20030507	EP 2001-957464	20010806
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004506063	T2	20040226	JP 2002-517696	20010806
US 2004059124	A1	20040325	US 2003-654103	20030903
US 2004059014	A1	20040325	US 2003-654175	20030903
PRIORITY APPLN. INFO.:			US 2000-223521P	P 20000807
			US 2001-920904	A 20010802
			WO 2001-US24634	W 20010806
AB	Disclosed are novel dyes compds. which contain one or more photopolymerizable vinyl groups which may be copolymd. (or cured) with ethylenically unsatd. monomers to produce colored compns. with good color fastness. In an example, a red dye was obtained by diesterifying 1,5-bis(2-carboxyphenylthio)anthraquinone with 4-vinylbenzyl chloride.			
IT	71673-15-9P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (intermediate; production of photopolymerizable dyes)			
RN	71673-15-9 CAPLUS			
CN	9,10-Anthracenedione, 1,5-bis[[1-(2-hydroxyethyl)-1H-1,2,4-triazol-3-yl]thio]- (9CI) (CA INDEX NAME)			



IT	396732-69-7P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (yellow dye; production of photopolymerizable dyes)			
RN	396732-69-7 CAPLUS			
CN	2-Propenoic acid, 2-methyl-, (9,10-dihydro-9,10-dioxo-1,5-anthracenediyl)bis(thio-1H-1,2,4-triazole-3,1-diyl-2,1-ethanediyl) ester			



L4 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:123135 CAPLUS
DOCUMENT NUMBER: 136:168967
TITLE: Thermally stable anthraquinone dyes containing
copolymerizable vinyl groups and photocurable coating
compositions therefrom
INVENTOR(S): Cyr, Michael John; Weaver, Max Allen; Rhodes, Gerry
Foust; Pearson, Jason Clay; Cook, Phillip Michael; De
Wit, Jos Simon; Johnson, Larry Keith
PATENT ASSIGNEE(S): Eastman Chemical Company, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

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FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012401	A2	20020214	WO 2001-US23705	20010730
WO 2002012401	A3	20020418		
W: CN, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2002068725	A1	20020606	US 2001-911789	20010724
US 6689828	B2	20040210		
EP 1307517	A2	20030507	EP 2001-961769	20010730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004506062	T2	20040226	JP 2002-517695	20010730
PRIORITY APPLN. INFO.:				
			US 2000-633548	A 20000807
			US 2001-911789	A 20010724
			WO 2001-US23705	W 20010730

OTHER SOURCE(S): MARPAT 136:168967

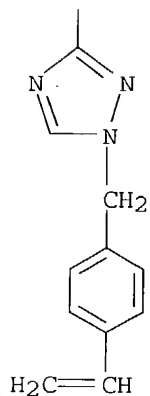
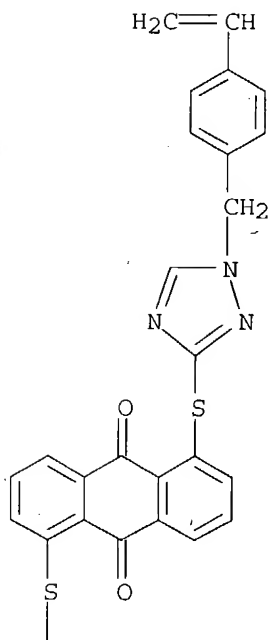
AB Disclosed are thermally stable anthraquinone dyes which contain one or more vinyl groups which render the compds. copolymerizable with reactive vinyl comonomers to produce colored, polymeric compns. The dyes possess good fastness to UV light, good solubility in the comonomers, good color strength, and excellent thermal stability. In an example, 1,5-bis(2,2-dimethyl-3-hydroxypropylamino)anthraquinone was diesterified with methacrylic anhydride to give a red dye which could be photopolymd. with acrylic comonomers to give red coating materials.

IT, 396715-21-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(yellow dye; production of polymerizable anthraquinone dyes for photocurable coatings)

RN 396715-21-2 CAPLUS

CN 9,10-Anthracenedione, 1,5-bis[[1-[(4-ethenylphenyl)methyl]-1H-1,2,4-triazol-3-yl]thio]- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:123134 CAPLUS
DOCUMENT NUMBER: 136:185321
TITLE: Thermally stable anthraquinone dyes containing
copolymerizable vinyl groups, and polymers therefrom
INVENTOR(S): Cyr, Michael John; Weaver, Max Allen; Rhodes, Gerry
Foust; Pearson, Jason Clay; Cook, Phillip Michael
PATENT ASSIGNEE(S): Eastman Chemical Company, USA
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012400	A2	20020214	WO 2001-US20347	20010627
WO 2002012400	A3	20020418		
W: CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1307514	A2	20030507	EP 2001-950510	20010627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004506061	T2	20040226	JP 2002-517694	20010627
PRIORITY APPLN. INFO.:			US 2000-633548	A 20000807
			WO 2001-US20347	W 20010627

OTHER SOURCE(S): MARPAT 136:185321

AB Disclosed are thermally stable, anthraquinone dyes which contain one or more vinyl groups which render the dyes copolymerizable with reactive vinyl monomers to produce colored, polymeric compns. such as methacrylate polymeric materials. The dyes possess fastness to UV light, good solubility in vinyl monomers, good color strength, and excellent thermal stability. Also disclosed are acrylic polymers derived from acrylic acid esters, methacrylic acid esters and/or other copolymerizable vinyl compds., having copolymerizable therein one or more of the anthraquinone colorant compds. In an example, a yellow copolymerizable dye was prepared by esterifying 1,5-bis(2-carboxyphenylthio)anthraquinone with 4-vinylbenzyl chloride (1:2).

IT **396715-21-2P**

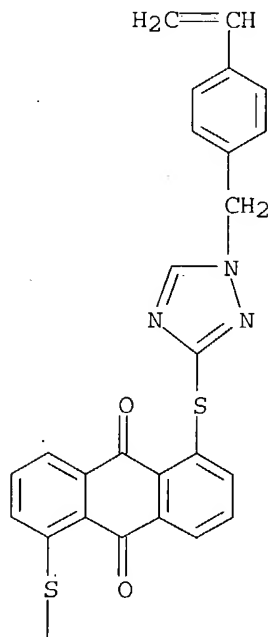
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

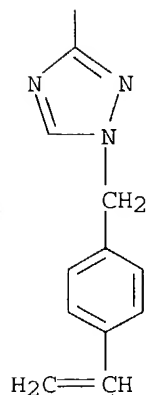
(yellow dye monomer; production of copolymerizable thermally stable anthraquinone dye vinyl derivs.)

RN 396715-21-2 CAPLUS

CN 9,10-Anthracenedione, 1,5-bis[[1-[(4-ethenylphenyl)methyl]-1H-1,2,4-triazol-3-yl]thio]- (9CI) (CA INDEX NAME)

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L4 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:323713 CAPLUS

DOCUMENT NUMBER: 135:319510

TITLE: Synthesis of novel polymeric colorants

AUTHOR(S): Weaver, Max A.; Rhodes, Gerry; Cyr, Michael J.

CORPORATE SOURCE: Eastman Chemical Co., Kingsport, TN, USA

SOURCE: Proceedings of the Annual International Conference & Exhibition of the American Association of Textile Chemists and Colorists: The New Millennium of Textiles, Winston-Salem, NC, United States, Sept. 17-20, 2000 (2000), 160-169. American Association of Textile Chemists and Colorists: Research Triangle Park, N. C.

CODEN: 69BBST

DOCUMENT TYPE: Conference; (computer optical disk)

LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:319510

AB Several structural types of polydyes were prepared using three different synthetic methods and evaluated as colorants for thermoplastics, particularly polyesters. In Method I, anthraquinone polysulfonamide polydyes were synthesized by reacting colored anthraquinonedisulfonyl chlorides with diamines in a polar aprotic solvent in the presence of a base at about 95-100°C. In Method II, bis-aldehydes with two electron-rich aromatic aldehyde moieties joined by a linking group were reacted with bis(active methylenes) to yield polymethine polydyes. Polymerization reactions were carried out in aprotic solvents in the presence

of

a base to facilitate Knoevenagel reactions. Lastly, diacidic dyes were reacted with glycol bis(methanesulfonates) in the presence of a suitable base and a polar aprotic solvent to give polyester polydyes. The polydyes were characterized by gel-permeation chromatog. and UV-visible spectra. The prepared polydyes were soluble in thermoplastics as opposed to pigments, yet provide advantages over solvent dyes. The polydyes may be prepared in excellent yields in batch processing equipment and have high color strength.

IT 328925-65-1P 328925-78-6P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polydye; preparation of polymeric dyes for application to plastics)

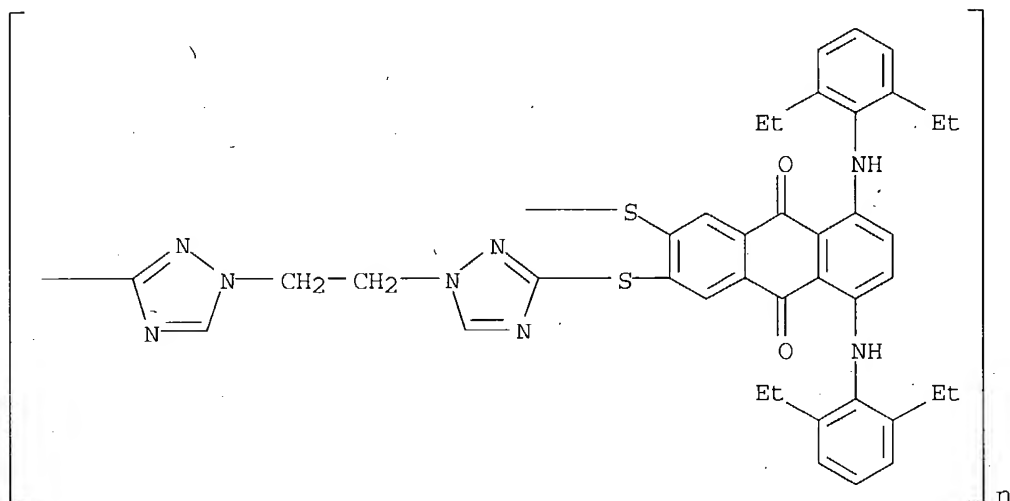
RN 328925-65-1 CAPLUS

CN Poly[1H-1,2,4-triazole-3,1-diyl-1,2-ethanediyl-1H-1,2,4-triazole-1,3-

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RN 328925-78-6 CAPLUS

CN Poly[1H-1,2,4-triazole-3,1-diyl-1,2-ethanediyl-1H-1,2,4-triazole-1,3-diylthio[5,8-bis[(2,6-diethylphenyl)amino]-9,10-dihydro-9,10-dioxo-2,3-anthracenediyl]thio] (9CI) (CA INDEX NAME)



REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:161399 CAPLUS

DOCUMENT NUMBER: 134:224013

TITLE: Preparation of light-absorbing polymeric compositions as thermoplastic dyes

INVENTOR(S): Weaver, Max Allen; Krutak, James John, Sr.; Maxwell, Brian Edison; Rhodes, Gerry Foust; Hilbert, Samuel David; Fleischer, Jean Carroll; Parham, William Whitfield

PATENT ASSIGNEE(S): Eastman Chemical Company, USA

SOURCE: U.S., 109 pp., Cont.-in-part of U.S. Ser. No. 976,206, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6197223	B1	20010306	US 1999-320002	19990526
KR 2000057281	A	20000915	KR 1999-704683	19990527
US 2001023938	A1	20010927	US 2000-751766	20001229
US 6776930	B2	20040817		
US 2004195552	A1	20041007	US 2004-817271	20040402
PRIORITY APPLN. INFO.:			US 1996-31478P	P 19961127
			US 1997-976206	B2 19971121
			US 1999-320002	A3 19990526
			US 2000-751766	A1 20001229

AB In the presence of a base, ≥ 1 diacidic monomer (having functional groups such as $-\text{CO}_2\text{H}$, $-\text{SH}$, SO_2NH_2 , etc. attached to an aromatic ring) comprising about 1-100 mol% of ≥ 1 light-absorbing monomer having a light absorption maximum of 300-1200 nm and 0-99 mol% of a non-light

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absorbing monomer which does not absorb significant light at wavelength >300 or <300 nm, form an oligomeric and optionally cyclic polymer that is useful as a dye for thermoplastics. Thus, thermoplastic Eastar PETG 6763 is dry blended, pelletized and pressed with a yellow anthraquinone polymeric composition obtained by the reaction products of 25.60 g of 1,5-bis(2-carboxyphenylthio)anthraquinone and 10.90 g of 1,2-ethanediol dimethanesulfonate in the presence of 13.82 g of potassium carbonate in 400 mL of N-methyl-2-pyrrolidinone, to give rise to a transparent yellow film with excellent color development.

IT 328925-65-1P 328925-70-8P 328925-78-6P

328926-20-1P

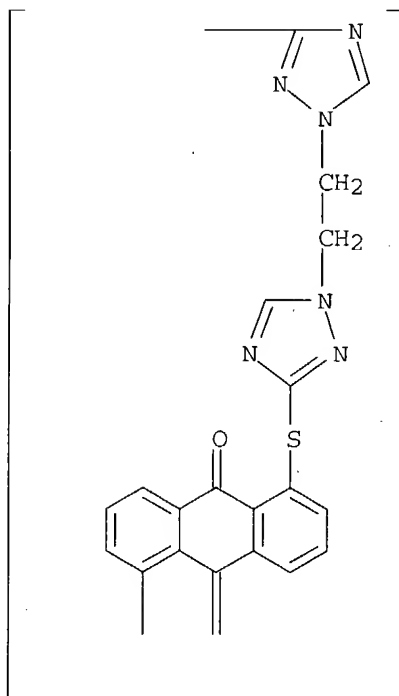
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(oligomeric, optionally cyclic; preparation of light-absorbing polymeric compns. as thermoplastic dyes)

RN 328925-65-1 CAPLUS

CN Poly[1H-1,2,4-triazole-3,1-diyl-1,2-ethanediyl-1H-1,2,4-triazole-1,3-diylthio(9,10-dihydro-9,10-dioxo-1,5-anthracenediyl)thio] (9CI) (CA INDEX NAME)

PAGE 1-A



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L4 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1984:104440 CAPLUS
DOCUMENT NUMBER: 100:104440
TITLE: Thermoplastic polyester molding compositions
INVENTOR(S): McFarlane, Finley E.; Taylor, Robert B.
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: U.S., 11 pp. Cont.-in-part of U.S. 4,250,078.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4420581	A	19831213	US 1981-229041	19810128
US 4250078	A	19810210	US 1979-21755	19790319
PRIORITY APPLN. INFO.:			US 1979-21755	19790319

AB Polyester molding compns. are provided, containing Fe₂O₃ for reduced heatup times, useful for blow molding bottles, and containing certain anthraquinone dyes which copolymerize when preparing the polyesters. Thus, a mixture of di-Me terephthalate 145.5, ethylene glycol 89.0, and 1,4-cyclohexanedimethanol 32.8 g containing Mn 50, Sb 250, Ti 30, P 70, and 1,5-bis[[[4-(hydroxymethyl)cyclohexyl]methyl]amino]anthraquinone 100, and Fe₂O₃ 38 ppm was heated 2 h, 20 min (except the P) while transesterification took place. The temperature was raised to 215° and maintained for 1.5 h to complete transesterification. The temperature was raised to 240° and the P was added. The composition was then heated 45 min at 285° at 0.10 mm to give a brilliant red polyester [75578-44-8].

IT 75578-41-5
RL: USES (Uses)
(colored molding compns.).

RN 75578-41-5 CAPLUS

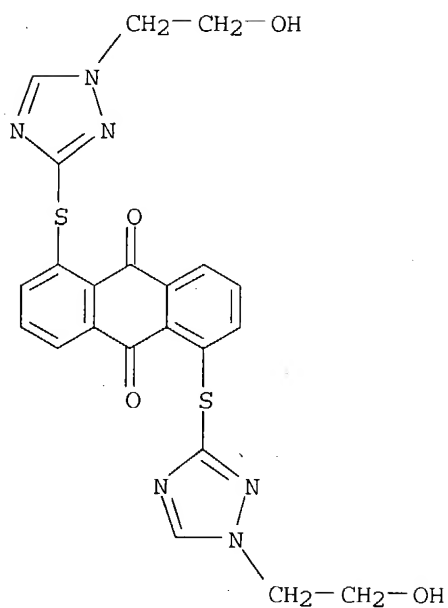
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,5-bis[[1-(2-hydroxyethyl)-1H-1,2,4-triazol-3-yl]thio]-9,10-anthracenedione, 1,5-bis[[[4-(hydroxymethyl)cyclohexyl]methyl]amino]-9,10-anthracenedione and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 71673-18-2

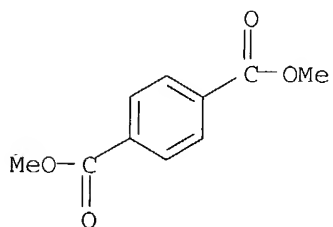
CMF C30 H38 N2 O4

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CM 3

CRN 120-61-6
CMF C10 H10 O4



CM 4

CRN 107-21-1
CMF C2 H6 O2

HO-CH₂-CH₂-OH

L4 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:176195 CAPLUS
DOCUMENT NUMBER: 94:176195
TITLE: Thermoplastic polyester molding compositions
INVENTOR(S): McFarlane, Finley E.; Taylor, Robert B.
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

10/654,175

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4250078	A	19810210	US 1979-21755	19790319
US 4420581	A	19831213	US 1981-229041	19810128
PRIORITY APPLN. INFO.:			US 1979-21755	19790319

AB Thermoplastic (optionally dye mol.-based) polyester molding compns. containing Fe oxides (particularly Fe₂O₃) exhibit markedly reduced heat-up times and are especially useful in the blow molding of beverage bottles. Thus, a mixture containing 145.5 g di-Me terephthalate, 89.0 g ethylene glycol, 32.8 g 1,4-cyclohexanedimethanol, 50 ppm Mn, 250 ppm Sb, 30 ppm Ti, 100 ppm red dye 1,5-bis[[[4-(hydroxymethyl)cyclohexyl]methyl]amino]anthraquinone, and 38 ppm Fe₂O₃ was heated at 195 and 215° to achieve ester exchange. Then 70 ppm P was added and the mixture was polycondensed in vacuo to give a brilliant red polymer [75578-44-8] having inherent viscosity 0.706 in phenol-tetrachloroethane. When formed into parisons and blow-molded into beverage bottles, the heat-up time necessary to soften the parison was reduced by .apprx.25% over the polyester which was not admixed with Fe₂O₃.

IT 75578-41-5

RL: USES (Uses)

(ferric trioxide-containing, for reduced heat-up times in blow molding of beverage bottles)

RN 75578-41-5 CAPLUS

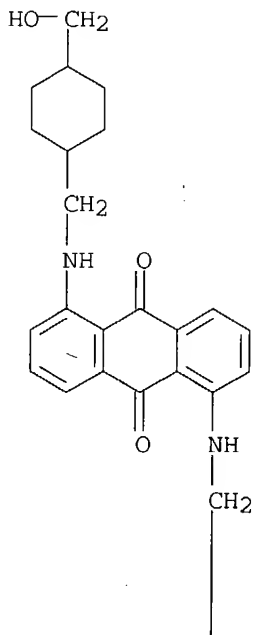
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,5-bis[[1-(2-hydroxyethyl)-1H-1,2,4-triazol-3-yl]thio]-9,10-anthracenedione, 1,5-bis[[[4-(hydroxymethyl)cyclohexyl]methyl]amino]-9,10-anthracenedione and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 71673-18-2

CMF C30 H38 N2 O4

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CRN 107-21-1
CMF C2 H6 O2

HO-CH₂-CH₂-OH

L4 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:621532 CAPLUS
DOCUMENT NUMBER: 93:221532
TITLE: Colored polyester
INVENTOR(S): Davis, Thomas Glenn; Weaver, Max Allen
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: Ger. Offen., 23 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3005223	A1	19800904	DE 1980-3005223	19800212
US 4267306	A	19810512	US 1979-12415	19790215
CA 1130804	A1	19820831	CA 1980-343456	19800110
FR 2450848	A1	19801003	FR 1980-3109	19800213
FR 2450848	B1	19830718		
NL 8000938	A	19800819	NL 1980-938	19800214
JP 55112234	A2	19800829	JP 1980-17727	19800215
GB 2046768	A	19801119	GB 1980-5165	19800215
GB 2046768	B2	19830216		

PRIORITY APPLN. INFO.: US 1979-12415 19790215

AB Heat-resistant dyes (3) such as 1,5-bis[[4-(hydroxymethyl)cyclohexylmethyl]amino]anthraquinone (I) [71673-18-2] and 1,5-bis[1-(2-hydroxyethyl)-1,2,4-triazol-3-ylthio]anthraquinone are copolymd. with monomers such as di-Et terephthalate (II) and HOCH₂CH₂OH to prepare colored polyesters. In some cases, other dyes and pigments are also used in the polyesters. Thus, I was prepared from 1,5-dichloroanthraquinone [82-46-2] and trans-4-(aminomethyl)cyclohexanemethanol [17879-23-1] and copolymd. (100 ppm) with II 145.5, HOCH₂CH₂OH 89, and 1,4-cyclohexanedimethanol 32.8 g to prepare a brilliant red polyester [75578-44-8].

IT 75578-41-5P

RL: PREP (Preparation)
(manufacture of colored)

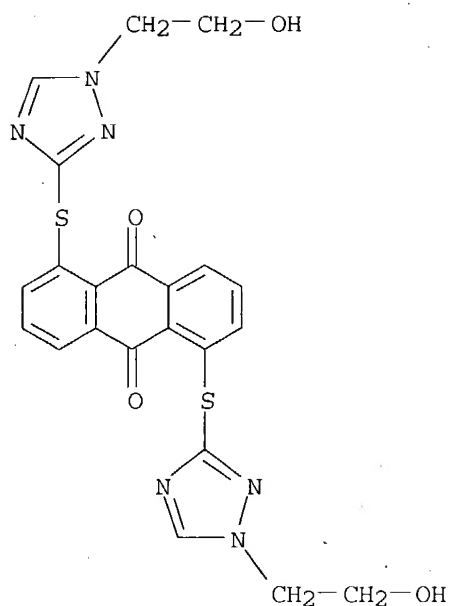
RN 75578-41-5 CAPLUS

CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with 1,5-bis[[1-(2-hydroxyethyl)-1H-1,2,4-triazol-3-yl]thio]-9,10-anthracenedione, 1,5-bis[[4-(hydroxymethyl)cyclohexyl]methyl]amino]-9,10-anthracenedione and 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

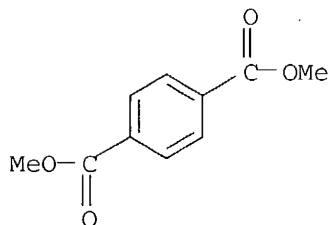
CRN 71673-18-2
CMF C30 H38 N2 O4

10/654,175



CM 3

CRN 120-61-6
CMF C10 H10 O4



CM 4

CRN 107-21-1
CMF C2 H6 O2

HO-CH₂-CH₂-OH

L4 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:14185 CAPLUS
DOCUMENT NUMBER: 74:14185
TITLE: Water insoluble anthraquinone compounds and their use
in dyeing textiles from hydrophobic polymers
INVENTOR(S): Weaver, Max A.; Giles, Ralph R.
PATENT ASSIGNEE(S): Eastman Kodak Co.
SOURCE: Ger. Offen., 93 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent

10/654,175

LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2008881		19700917		
CA 944763			CA	
FR 2033046			FR	
FR 2037130			FR	
GB 1300828			GB	
US 3689501		19720000	US	
PRIORITY APPLN. INFO.:			US	19690227

GI For diagram(s), see printed CA Issue.

AB The title compds. have the general formula I, where R is an anthraquinone residue, X = (OCH₂CH₂)₂, 4-OC₆H₄CH₂, O(CH₂)₄, m = 0, 1; n = 1, 2; R₁, R₂ = alkyl, Ph, Ac. Thus, 1-amino-4-chloroanthraquinone was condensed with 3-mercapto-1H-1,2,4-triazole in DMF containing K₂CO₃ to give II (R = H) (III), pink on polyamide, polyester, and cellulose acetate fibers. Similarly 22 other I were prepared III and Me₂SO₄ gave II.Me₂SO₄ (R = Me), violet on polyacrylonitrile fibers.

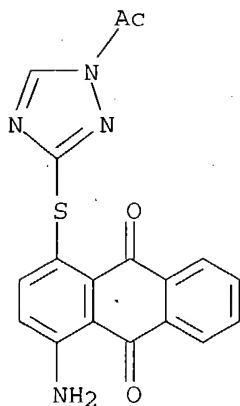
IT 30123-35-4P 30123-36-5P 30123-37-6P

30123-38-7P 30123-39-8P 30123-40-1P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

RN 30123-35-4 CAPLUS

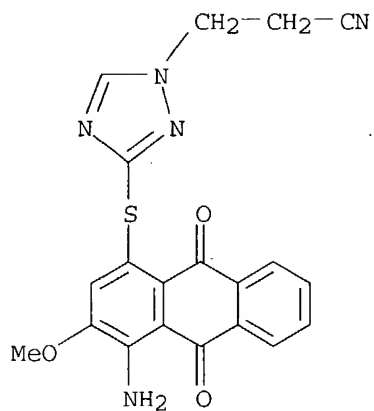
CN 1H-1,2,4-Triazole, 1-acetyl-3-[(4-amino-1-anthraquinonyl)thio]- (8CI) (CA INDEX NAME)



RN 30123-36-5 CAPLUS

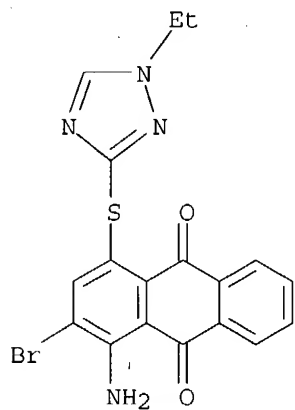
CN 1H-1,2,4-Triazole-1-propionitrile, 3-[(4-amino-3-methoxy-1-anthraquinonyl)thio]- (8CI) (CA INDEX NAME)

10/654,175



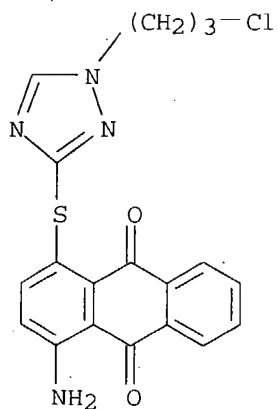
RN 30123-37-6 CAPLUS

CN Anthraquinone, 1-amino-2-bromo-4-[(1-ethyl-1H-1,2,4-triazol-3-yl)thio] -
(8CI) (CA INDEX NAME)



RN 30123-38-7 CAPLUS

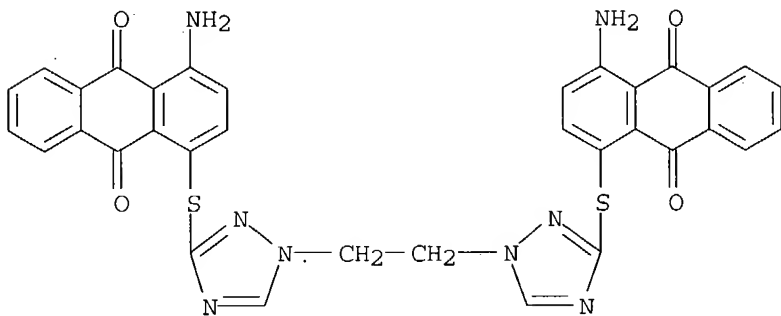
CN Anthraquinone, 1-amino-4-[[1-(3-chloropropyl)-1H-1,2,4-triazol-3-yl]thio] -
(8CI) (CA INDEX NAME)



10/654,175

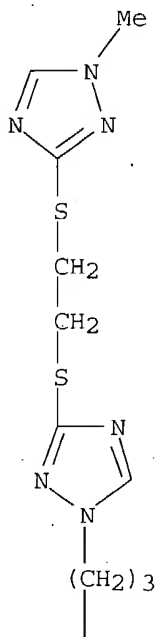
RN 30123-39-8 CAPLUS

CN Anthraquinone, 1,1'-[ethylenebis(1H-1,2,4-triazole-1,3-diylthio)]bis[4-amino- (8CI) (CA INDEX NAME)



RN 30123-40-1 CAPLUS

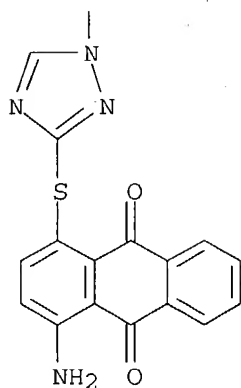
CN Anthraquinone, 1-amino-4-[[1-[3-[3-[[2-[(1-methyl-1H-1,2,4-triazol-3-yl)thio]ethyl]thio]-1H-1,2,4-triazol-1-yl]propyl]-1H-1,2,4-triazol-3-yl]thio]- (8CI) (CA INDEX NAME)



PAGE 1-A

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PAGE 2-A



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(FILE 'HOME' ENTERED AT 09:51:37 ON 08 NOV 2004)

FILE 'REGISTRY' ENTERED AT 09:51:54 ON 08 NOV 2004

L1 STRUCTURE UPLOADED

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L3 14 S L1 FULL

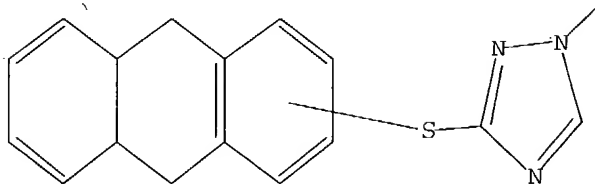
FILE 'CAPLUS' ENTERED AT 09:53:06 ON 08 NOV 2004

L4 10 S L3

=> d l1

L1 HAS NO ANSWERS

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=>



Day : Monday
Date: 11/8/2004
Time: 09:27:34

Inventor Name Search Result

Your Search was:

Last Name = CYR

First Name = MICHAEL

Application#	Patent#	Status	Date Filed	Title	Inventor Name 51
<u>60257454</u>	Not Issued	159	12/21/2000	DATA STORAGE DEVICE WITH WIRELESS COMMUNICATIONS PORT	CYRULNIK, MICHAEL E.
<u>60223521</u>	Not Issued	159	08/07/2000	COLORANT COMPOUNDS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL J.
<u>60223520</u>	Not Issued	159	08/07/2000	COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS AND SULFONAMIDE LINKAGES	CYR, MICHAEL J.
<u>60165064</u>	Not Issued	159	11/12/1999	POLYAMIDE NANOCOMPOSITES WITH OXYGEN SCAVENGING CAPABILITY	CYR , MICHAEL JOHN
<u>60148168</u>	Not Issued	159	08/10/1999	POLYETHER CONTAINING POLYMERS FOR OXYGEN SCAVENGING	CYR , MICHAEL J.
<u>60148156</u>	Not Issued	159	08/10/1999	PLATELET PARTICLE POLYMER COMPOSITE WITH OXYGEN SCAVENGING ORGANIC CATIONS	CYR , MICHAEL J.
<u>60148138</u>	Not Issued	159	08/10/1999	POLYAMIDE NANOCOMPOSITES WITH OXYGEN SCAVENGING CAPABILITY	CYR , MICHAEL JOHN
<u>60034421</u>	Not Issued	159	12/17/1996	METHODS OF MARKING DIGITAL COMPACT DISCS AS A MEANS TO DETERMINE ITS AUTHENTICITY	CYR , MICHAEL J.
<u>60030366</u>	Not	159	11/05/1996	METHOD AND APPARATUS	CYR , MICHAEL

	Issued			FOR DISCRIMINATING BETWEEN NEAR INFRARED FLUORESCENT MARKINGS	J.
<u>60020308</u>	Not Issued	159	06/24/1996	SCANNERS FOR READING NEAR INFRARED FLUORESCENT MARKINGS	CYR , MICHAEL J.
<u>60012997</u>	Not Issued	159	03/07/1996	THERMAL TRANSFER MEDIA ONTAINING NEAR INFRARED FLUOROPHORES	CYR , MICHAEL J.
<u>60008213</u>	Not Issued	159	12/05/1995	PHOTOOXIDATION POLYMERS FOR VARIOUS APPLICATIONS	CYR , MICHAEL J.
<u>10757959</u>	Not Issued	020	01/15/2004	POLYMAMIDE NANOCOMPOSITES WITH OXYGEN SCAVENGING CAPABILITY	CYR, MICHAEL JOHN
<u>10734630</u>	Not Issued	030	12/12/2003	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>10719883</u>	Not Issued	071	11/21/2003	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>10719427</u>	<u>6787658</u>	150	11/21/2003	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>10719268</u>	Not Issued	071	11/21/2003	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JONH
<u>10659225</u>	Not Issued	020	09/10/2003	METHOD FOR REDUCING THE ACETALDEHYDE LEVEL IN POLYESTERS	CYR, MICHAEL JOHN
<u>10654175</u>	Not Issued	030	09/03/2003	COLORANT COMPOUNDS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>10654103</u>	Not Issued	041	09/03/2003	COLORANT COMPOUNDS CONTAINING COPOLYMERIZABLE VINYL	CYR, MICHAEL JOHN

				GROUPS	
<u>10215051</u>	Not Issued	041	08/08/2002	SYSTEM AND METHOD FOR PLAYING BLACKJACK	CYRKIEL, MICHAEL
<u>10127064</u>	Not Issued	030	04/19/2002	IPSEC NETWORK ADAPTER VERIFIER	CYR, MICHAEL PAUL
<u>10054285</u>	<u>6630521</u>	150	11/13/2001	ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>10046679</u>	<u>6713641</u>	150	10/19/2001	REACTIVE ANTHRAQUINONE COLORANT COMPOUNDS AND POLYMERIC MATERIALS REACTED THEREWITH	CYR, MICHAEL JOHN
<u>09920904</u>	<u>6727372</u>	150	08/02/2001	COLORANT COMPOUNDS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>09920151</u>	<u>6620858</u>	150	08/01/2001	COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS AND SULFONAMIDE LINKAGES	CYR, MICHAEL JOHN
<u>09911789</u>	<u>6689828</u>	150	07/24/2001	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>09633548</u>	Not Issued	161	08/07/2000	THERMALLY STABLE, ANTHRAQUINONE COLORANTS CONTAINING COPOLYMERIZABLE VINYL GROUPS	CYR, MICHAEL JOHN
<u>09630519</u>	<u>6455620</u>	150	08/02/2000	POLYETHER CONTAINING POLYMERS FOR OXYGEN SCAVENGING	CYR, MICHAEL JOHN
<u>09630518</u>	<u>6610772</u>	150	08/02/2000	PLATELET PARTICLE POLYMER COMPOSITE WITH OXYGEN SCAVENGING ORGANIC CATIONS	CYR, MICHAEL JOHN
<u>09630517</u>	<u>6777479</u>	150	08/02/2000	POLYAMIDE NANOCOMPOSITES WITH OXYGEN SCAVENGING CAPABILITY	CYR, MICHAEL JOHN
<u>09339125</u>	<u>6221279</u>	150	06/24/1999	PIGMENT PARTICLES FOR	CYR, MICHAEL

				INVISIBLE MARKING APPLICATIONS	JOHN
<u>09261699</u>	<u>5988644</u>	150	03/03/1999	METHOD OF PLAYING A CARD GAME	CYRKIEL , MICHAEL
<u>09261282</u>	Not Issued	161	03/02/1999	ABRASIVE WATERJET PROCESS AND SYTEM FOR DRILLING ON WALLS INCLUDING CAVITIES THEREIN	CYR , MICHAEL J.
<u>09080977</u>	Not Issued	161	05/19/1998	GUARANTEE 20	CYRKIEL , MICHAEL
<u>09011805</u>	<u>6099930</u>	150	07/20/1998	METHODS FOR MARKING DIGITAL COMPACT DISCS AS A MEANS TO DETERMINE ITS AUTHENTICITY	CYR , MICHAEL JOHN
<u>08981859</u>	<u>6138913</u>	150	01/05/1998	SECURITY DOCUMENT AND METHOD USING INVISIBLE CODED MARKINGS	CYR , MICHAEL JOHN
<u>08880037</u>	<u>5959296</u>	150	06/20/1997	SCANNERS FOR READING NEAR INFRARED FLUORESCENT MARKS	CYR , MICHAEL JOHN
<u>08811311</u>	<u>6174400</u>	150	03/04/1997	NEAR INFRARED FLUORESCENT SECURITY THERMAL TRANSFER PRINTING AND MARKING RIBBONS	CYR , MICHAEL JOHN
<u>07966317</u>	<u>5302714</u>	150	10/26/1992	SAPPHYRINS, DERIVATIVES AND SYNTHESSES	CYR , MICHAEL J.
<u>07454298</u>	<u>5159065</u>	150	12/21/1989	SAPPHYRINS, DERIVATIVES AND SYNTHESSES	CYR , MICHAEL J.
<u>07087769</u>	Not Issued	071	08/21/1987	SPLITTER TREE SYSTEM FOR USE IN COMPUTER IMAGE GRAPHICS	CYRUS , MICHAEL L.
<u>07087768</u>	Not Issued	164	08/21/1987	TILING SYSTEM FOR USE IN COMPUTER IMAGE GRAPHICS	CYRUS , MICHAEL L.
<u>07087767</u>	Not Issued	164	12/05/1988	COMPUTER IMAGE GENERATION SYSTEM	CYRUS , MICHAEL L.
<u>06716207</u>	Not Issued	161	03/26/1985	VEHICLE WINDOWSILL ARMREST	CYR , MICHAEL B
<u>06704105</u>	<u>4588569</u>	150	02/21/1985	DRY INJECTION FLUE GAS DESULFURIZATION	CYRAN , MICHAEL J.

				PROCESS USING ABSORPTIVE SODA ASH SORBENT	
<u>06676847</u>	Not Issued	164	11/30/1984	TILING SYSTEM FOR USE IN COMPUTER IMAGE GRAPHICS	CYRUS , MICHAEL L.
<u>06676736</u>	Not Issued	164	11/30/1984	INTELLIGENT MEMORY SYSTEM FOR USE IN COMPUTER IMAGE GRAHICS	CYRUS , MICHAEL L.
<u>06676560</u>	Not Issued	164	11/30/1984	SPLITTER TREE SYSTEM FOR USE IN COMPUTER IMAGE GRAPHICS	CYRUS , MICHAEL L.
<u>06634234</u>	<u>4555391</u>	150	07/24/1984	DRY INJECTION FLUE GAS DESULFURIZATION PROCESS	CYRAN , MICHAEL J.
<u>06593749</u>	Not Issued	161	03/27/1984	CALCINED TRONA COMPOSITION FOR FLUE GAS DESULFURIZATION	CYRAN , MICHAEL J.

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Cyr

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